

## REMARKS

### Claim Status

Claims 1-20 are pending in this application. Of these, Claims 1-13 are canceled herein, Claims 14-20 withdrawn from consideration, and Claims 21-36 added.

### Objections

Claims 4, 7, 10, and 12 are objected to on account of various typographical errors found therein. The objection to canceled Claims 4, 7, and 10 as lacking antecedent basis for the term “heater” is obviated by newly added claims corresponding thereto. Applicants also acknowledge duplication of the term “second auger” in canceled Claim 12 and have duly verified the absence of this error from the newly added claims.

### Rejection under 35 U.S.C. §102

Claims 1-7, and 11 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Baskis (US 5,360,553). Applicants respectfully traverse this rejection in light of the claim amendments and for the following reasons.

In setting the stage for a 102 analysis, “(a) claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The present invention, as recited in Claim 21, is directed to an apparatus having four distinct components: a heater, a reactor, a first cooler, and a second cooler, each serving its own separate function and working in series with other components. The Baskis reference however is directed to an apparatus having a heating unit **23** that houses container **28**, which itself is the component that actually contacts and heats a coal-water emulsion (as opposed to the organic liquor of our invention). Note how the heater of our invention is configured to heat the organic liquor to produce a mixture of liquid and vaporized oil. The structure of our apparatus is designed to then process this mixture in the reactor to yield carbon solids and a mixture of hydrocarbon vapors and gases, which are conveyed into the first cooler and second cooler, respectively. One element, *i.e.* Baskis’s heating unit of which container **28** is a part, cannot be deemed as the equivalent of two elements, *i.e.* our heater **and** reactor, under 102 as anticipation must be found on an element-by-element basis.

Applicants also wish to draw attention to Baskis’s main condenser column **19**, which Examiner equates with our cooler. Condenser column **19** is not a cooler, in any manner understood by persons of ordinary skill in the art. This is evidenced by Baskis’s own disclosure. *See* Col. 4, lines 4-8, which

explains how Baskis's design effects heat transfer from the chimney portion 36 to the column 19. In light of the foregoing, Baskis fails to teach every limitation of our claims and withdrawal of this rejection is respectfully requested.

**Rejection under 35 U.S.C. §103**

Claims 8-10, and 12-13 are rejected under 35 U.S.C. §103(a) as allegedly being obvious over Baskis (US 5,360,553). Alternatively, Claims 8-10 are rejected under 35 U.S.C. §103(a) as allegedly being obvious over Baskis (US 5,360,553) in view of Lee (US 5,466,383). Applicants respectfully traverse this rejection in light of the claim amendments and for the following reasons.

In establishing a *prima facie* case of obviousness, a three-pronged standard must be met. These include: a) teaching or suggestion in the prior art of all claim limitations; b) motivation or suggestion to modify or combine; and c) reasonable expectation of success. As previously noted with regard to canceled Claims 8-10 (replaced herein by new Claims 21-31), Baskis fails to teach the four specific components of our invention, a deficiency which cannot be cured by the mere mention of a rotary cutoff valve in PERRY'S CHEMICAL ENGINEERS' HANDBOOK or the use of an air lock valve in conjunction with an auger in the wildly disparate structure of Lee.

As to the rejection of canceled Claims 12-13 (replaced herein by new Claims 32-36), Baskis fails to teach a fluid-solid separator in communication with the first outlet. The distinction between the first, heated auger and the fluid-solid separator of our invention needs to be appreciated. Whereas Baskis' second reactor 128 is constructed like the first reactor 120, characterized by a cylindrical shell with an input end and an output end with an internal means to move the slurry from one end to the other. *See* Col. 8, lines 24-31. Baskis fails to teach or suggest the use of a fluid-solid separator. As such, Applicants believe the pending claims to be non-obvious over Baskis, Lee, and PERRY'S CHEMICAL ENGINEERS' HANDBOOK. Withdrawal of this rejection is respectfully requested.

In view of the foregoing, it is believed that all claims now pending in this Application are in condition for allowance. Should the Examiner have any continuing objections, the Applicant respectfully asks the Examiner to contact the undersigned at 415-442-1490 (direct line) in order to expedite allowance of the case. Authorization is granted to charge any outstanding fees due at this time for the continued prosecution of this matter to Morgan, Lewis & Bockius LLP Deposit Account No. 50-0310 (matter no. 061136-0014-US).

Respectfully submitted,

Date: October 4, 2007 By:

  
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Ada O. Wong, Reg. No. 55,740

on behalf of Thomas D. Kohler, Reg. No. 32,797  
MORGAN, LEWIS & BOCKIUS LLP  
2 Palo Alto Square  
3000 El Camino Real, Suite 700  
Palo Alto, CA 94306  
(415) 442-1490

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